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NOTES

FOR GABION RETAINING WALLS, SEE GABION RETAINING WALL PROVISION.

FOR GUARDRAIL, SEE ROADWAY PLANS AND SECTION 862 OF THE STANDARD SPECIFICATIONS.

BEFORE BEGINNING GABION RETAINING WALL CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS SHOWN ON THE WALL PROFILE VIEW (WALL ENVELOPE) AND SUBMIT A REVISED WALL ENVELOPE FOR REVIEW. DO NOT START CONSTRUCTION UNTIL THIS ENVELOPE IS ACCEPTED.

TEMPORARY SHORING IS REQUIRED IN ACCORDANCE WITH THE TEMPORARY SHORING PROVISIONS. SEE TRAFFIC CONTROL PLANS.

THE MINIMUM EMBEDMENT FOR THE WALL IS 2 FEET BELOW THE PROPOSED OR EXISTING GROUND ELEVATIONS.

TRANSITION ENDS OF WALL BY SPILLING ADJACENT SLOPE SOILS AROUND FACE OF WALL AS DIRECTED BY ENGINEER.

WHERE THE GABION RETAINING WALL INTERSECTS DRAINAGE PIPES OR OTHER OBSTRUCTIONS, SUBMIT PENETRATION REINFORCEMENT DETAILS FOR APPROVAL PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION. SEE DRAINAGE PLANS FOR ADDITIONAL INFORMATION.

THE TOP OF WALL LOCATION, AS SHOWN IN DETAIL, CORRESPONDS TO WALL LOCATION AS SHOWN IN ROADWAY PLANS. THE CONTRACTOR/DESIGNER ARE RESPONSIBLE FOR LOCATING THE FACE OF THE BOTTOM OF WALL SO THE TOP OF WALL LINES UP WITH THE CORRECT OFFSET AS SHOWN ON THE PLANS.

SEE ROADWAY PLANS FOR FINISH GRADE DETAILS.

EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, GUARDRAIL POSTS, PAVEMENTS, PIPES, INLETS, OR UTILITIES MAY INTERFERE WITH THE REINFORCEMENT FOR GABION RETAINING WALLS.

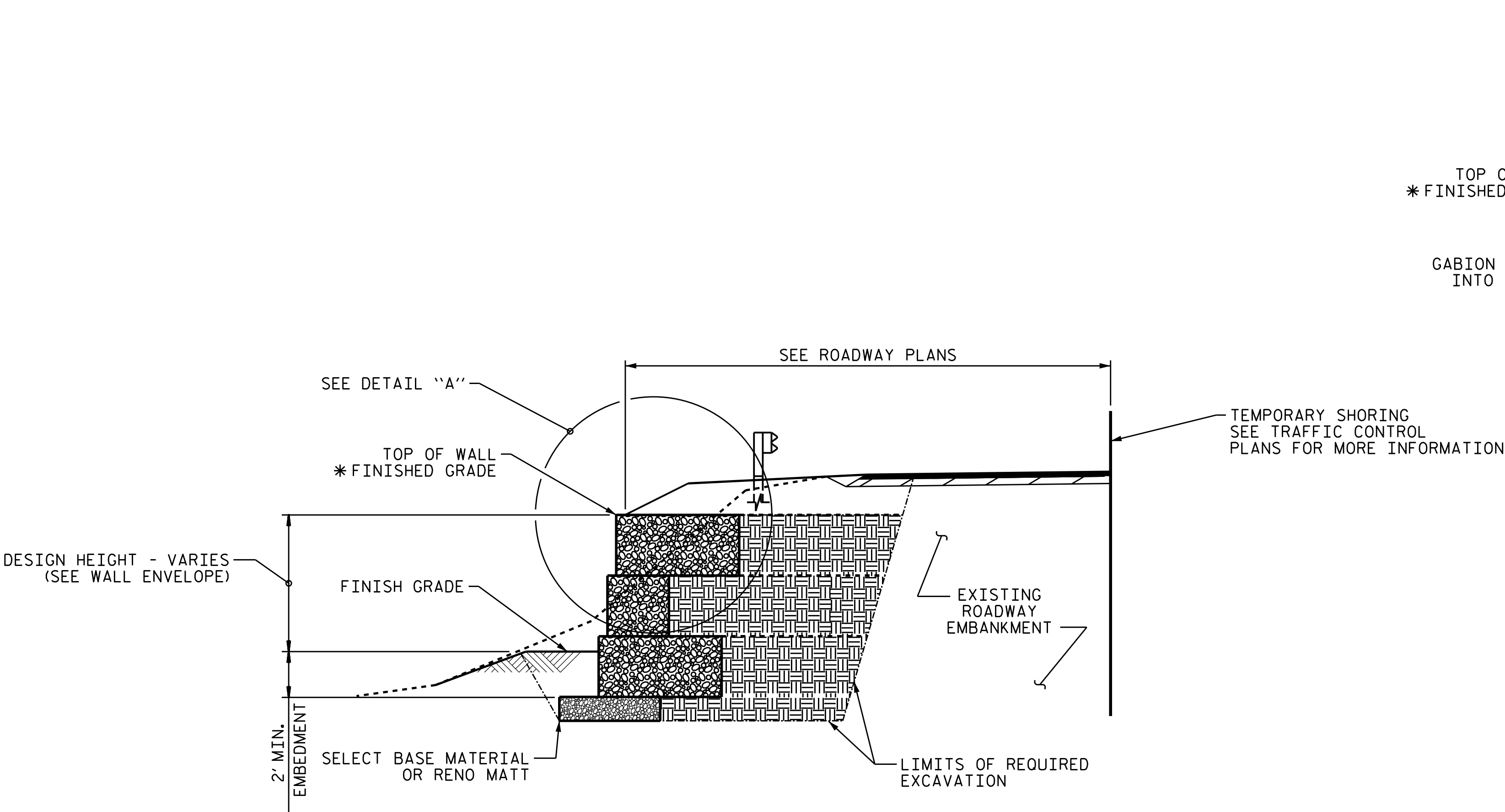
DO NOT PLACE LEVELING PAD STONE, SELECT MATERIAL OR REINFORCEMENT UNTIL OBTAINING APPROVAL OF THE EXCAVATION DEPTH AND FOUNDATION MATERIAL.

MINIMUM SERVICE LFIE = 75 YEARS

ALLOWABLE BEARING CAPACITY = 2000 PSF.

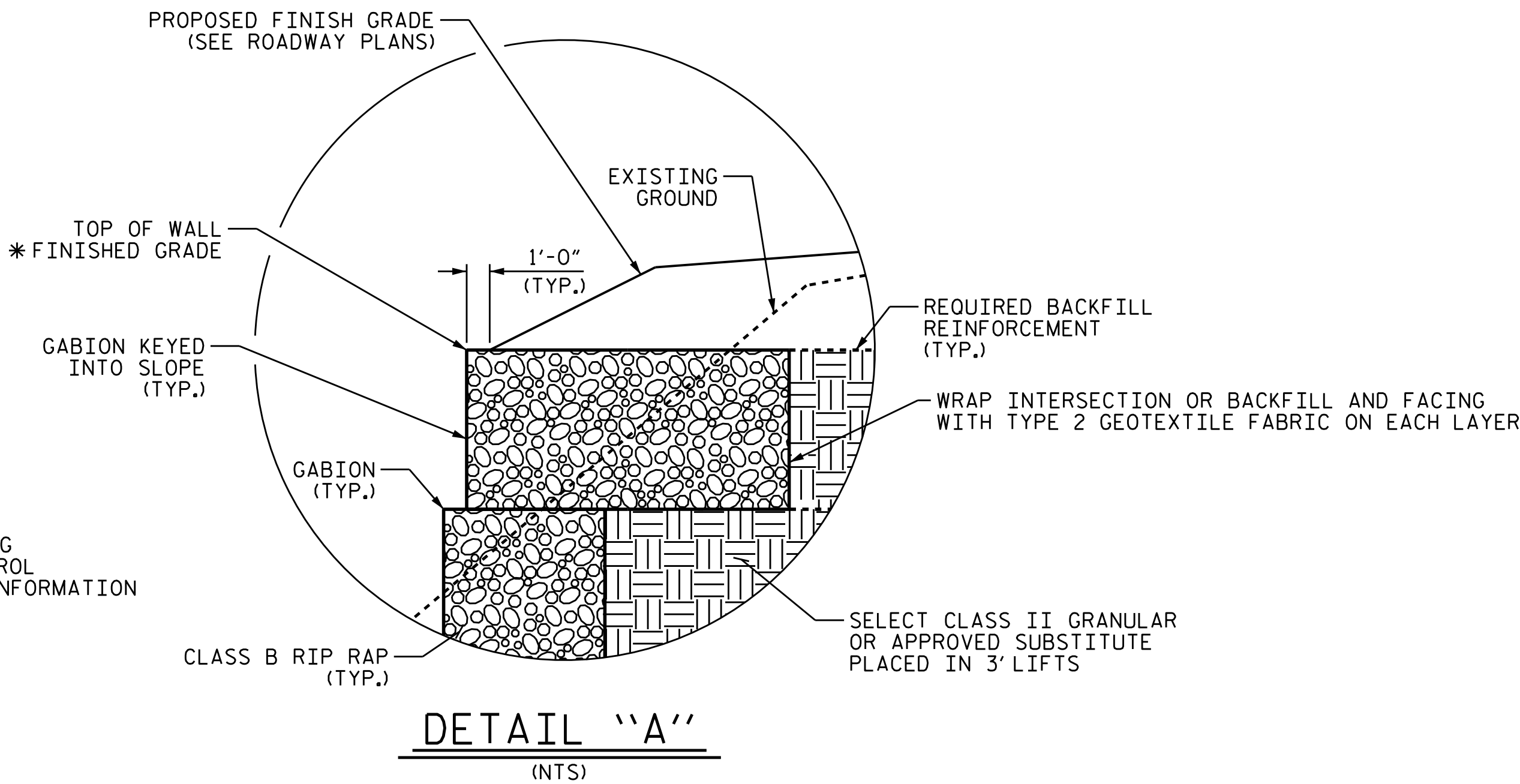
IN-SITU ASSUMED MATERIAL PARAMETERS:

MATERIAL TYPE	UNIT WEIGHT (γ) LB/CF	FRICTION ANGLE (φ) DEGREES	COHESION (c) LB/SF
BACKFILL	120	32	0
FOUNDATION	110	28	0



TYPICAL SECTION

(NTS)



DETAIL "A"

(NTS)

\* SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.

PROJECT NO. 17BP.14.R.91

GRAHAM COUNTY

STATION: 13+85.00 -L- TO 14+30.00 -L-

SHEET 1 OF 2

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

GABION  
RETAINING WALL  
DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	W-1
1			3			TOTAL SHEETS
2			4			2

WSP

WSP USA Inc.  
434 FAYETTEVILLE STREET  
SUITE 1500  
RALEIGH, NC 27601  
TEL: 1-919-836-4040  
LICENSE NO. F-0165

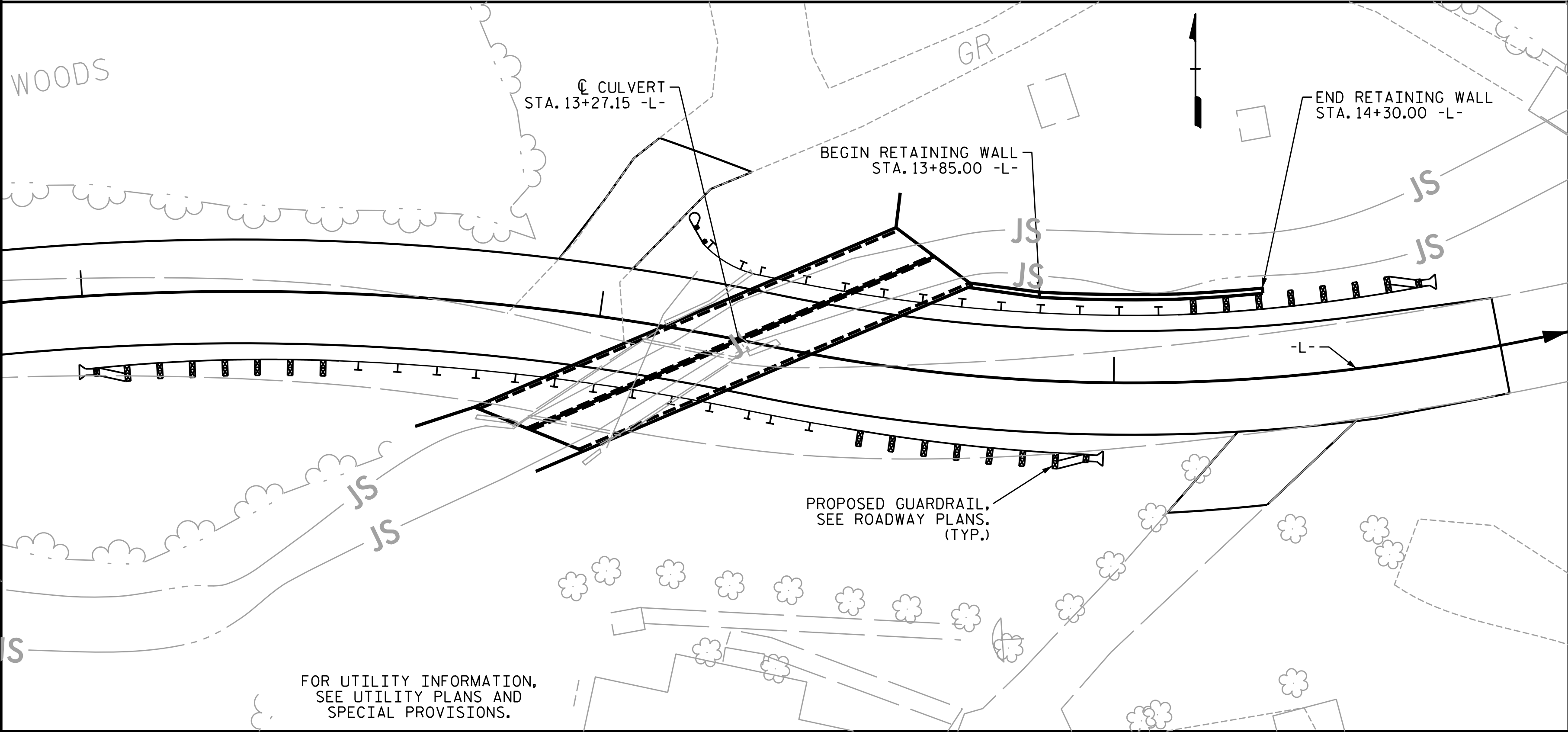
PROFESSIONAL  
SEAL  
NICHOLAS A. PIERCE  
REGISTERED PROFESSIONAL ENGINEER  
NO. 34085  
EXPIRATION DATE 12/31/2024

9/7/2017

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

DRAWN BY : N.A. PIERCE DATE : 11/14  
CHECKED BY : M.J. OSTRISHKO DATE : 11/14

BM2: 8" SPIKE SET IN BASE OF 24" POPLAR TREE, 24.71' RIGHT OF STA. 14+72.96-L-, EL. =2297.34



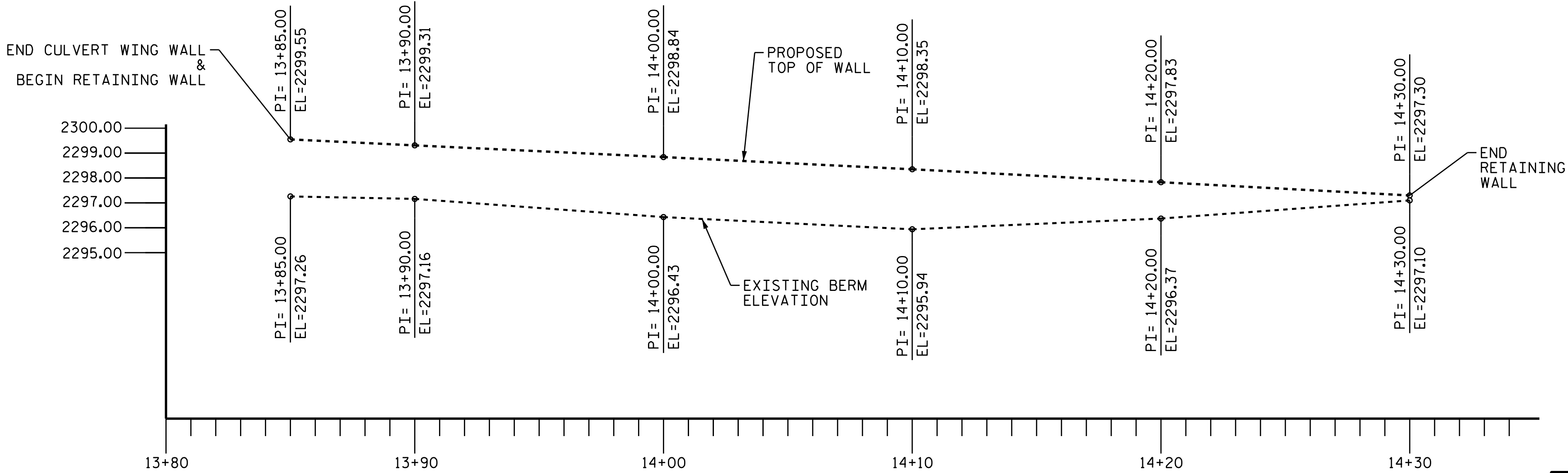
- NOTES
- FOR GABION RETAINING WALL DETAILS, SEE SHEET 1 OF 2.

\* ELEVATION AT PROPOSED FINISHED GRADE AND EXPOSED WALL HEIGHT DOES NOT INCLUDE EMBEDMENT DEPTH.

\*\* FOR DESIGN WALL HEIGHT "H", SEE DESIGN DETAILS.

RETAINING WALL ELEVATIONS				
-L- STATION	OFFSET FROM C (LEFT)	ELEV. AT TOP OF WALL	* EXISTING BERM ELEVATION	** DESIGN WALL HEIGHT "H"
13+85.00	16.00'	2299.55	2297.26	2.29
13+90.00	16.00'	2299.31	2297.16	2.15
14+00.00	16.00'	2298.84	2296.43	2.41
14+10.00	16.00'	2298.35	2295.94	2.41
14+20.00	16.14'	2297.83	2296.37	1.46
14+30.00	16.30'	2297.30	2297.10	0.20

TOTAL STRUCTURE QUANTITIES	
Δ GABION RETAINING WALL	86.0 SO.FT.
Δ SQUARE FOOTAGE DOES NOT INCLUDE EMBEDMENT	



PROJECT NO. 17BP.14.R.91  
GRAHAM COUNTY  
STATION: 13+85.00 -L- TO 14+30.00 -L-  
SHEET 2 OF 2

REVISIONS						SHEET NO. W-2
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS
2			4			2

DRAWN BY : N.A. PIERCE DATE : 01/15  
CHECKED BY : M.J. OSTRISHKO DATE : 01/15

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SEAL

Document by:  
Michael A. Pierce  
Professional Engineer  
9/7/2017

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